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A FURTHER LOOK AT LEADER LEGITIMACY, INFLUENCE, AND INNOVATION. (U)

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A Further Look at Leader Legitimacy,
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Edwin P. Hollander and James W. Julian
State University of New York at Buffalo

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Edwin P. Hollander, Principal Investigator

Department of Psychology
State University of New York at Buffalo
4230 Ridge Lea Road
Buffalo, New York 14226

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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) A review of the findings of several lines of programmatic research on the interactive features of leadership is provided. Topics dealt with in these studies include: effects of appointment or election of leaders; success or failure of group; replacement of the leader; sex of leader in mixed-sex groups; emergent leadership as a function of quantity and quality of participation in discussion groups; task and personality factors in emergent leadership.		

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A Further Look at Leader Legitimacy, Influence, and Innovation*

Edwin P. Hollander and James W. Julian

State University of New York at Buffalo

In conceiving the line of research presented in our original chapter, we had two main interests. First, we wanted to move toward a more transactional approach to leadership, taking greater account of leader-follower relations over time. Second, we tried to break away from the focus on leader characteristics as such and look more at the bases for the leader's legitimacy as perceived by followers and by the leader.

Legitimacy was a convenient way of summarizing several variables which we saw as part of a process affecting leader-follower relations. These variables were the leader's source of authority, through appointment or election, perceived competence and motivation, and success or failure in producing desired outcomes for the group.

Since that chapter was written, we and our colleagues, many of whom are former students, have done further research in this and related veins. Sometimes these same variables were used, and other times new ones were introduced. In this paper we will be reporting briefly on this research. Its several features include: an extension of experimentation on leader appointment or election and success or failure; quantity and quality of participation in situations of emergent leadership; and the interaction of personality and task set in emergent leadership.

*This report is to appear as a follow-up article in a volume reprinting the authors' chapter on "Leader Legitimacy, Influence, and Innovation," from Advances in Experimental Social Psychology, Vol. 5, Edited by L. Berkowitz, 1970, among other selected chapters from that series.

Further Findings on Appointment vs. Election and Success vs. Failure

Pursuing the broader line of this research on appointment or election, Hollander, Fallon and Edwards (1977) reported two experiments in which there was an actual election of leaders, contrasted with those who were appointed, cross-cut with conditions of success or failure. In the first experiment, twelve groups composed of four male students each were presented with the typical urban problems from the city called Colossus. This is the task that had been used in the experiment by Hollander, Julian, and Sorrentino (1969), reported as the last one in the original chapter. The second of the new experiments also used the Colossus material, with a third phase added to study the effects of having a change in leaders.

Immediately before grouping together for discussion in both experiments, the subjects were provided with a form listing the various urban problems, with four possible action programs for each. They were asked to make their own individual determinations of the order of priority, among the four, for each of the problem areas. After the forms were collected, subjects were assigned on a random basis to one of the four adjoining rooms and spent a few minutes discussing which problems they thought were most important. They then either elected a group discussion leader or had one appointed by the experimenter.

Each group's task was to arrive at group rankings of the action programs for each of the problem areas, i.e., education, race relations, welfare, transportation, and so on. After the first five problem areas had been completed, in about a half hour, one each of the groups with elected and appointed leaders was led to believe that it had done well or not well, that is, had succeeded or failed with respect to the "acceptability" of the first ranking they had assigned, in each problem area. All of the groups then continued with the next five of the problem areas, discussing them to reach group consensus on each.

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The primary dependent measure from these face-to-face discussions was calculated by an "influence ratio," which took account of the disparity between an individual's original ratings and the group's ratings. The less the disparity, the greater the influence. In general, it was found that the appointed leaders were less influential, proportional to how much change they could possibly have induced, than were elected ones, thus confirming one aspect of earlier results.

A more compelling result, however, was the difference in the influence of elected leaders compared to appointed ones in the failure condition. Briefly, the elected leaders showed a substantial gain in influence after failure, while no such shift was evident for the appointed leaders. Alternatively, the elected leaders, after success, were found to be less influential during the second phase than they had been during the first. A further finding, to be noted shortly, shows that the elected leaders' initial gain in influence after failure is short-lived.

The interpretation offered for these findings, which included post-discussion responses, is that failure was seen by the group as a "crisis" (cf. Hamblin, 1958). In dealing with it, the elected leader was able to assert greater influence and the group in turn gave him greater latitude in accepting his position. Under the success condition, however, there was no crisis and accordingly group members acted out of a greater security in their own judgments.

As a further probe in the direction of the influence of leaders over time, the second experiment reported by Hollander, Fallon and Edwards (1977) took a closer look at the followers' tolerance of the leader and their willingness to have him continue. There were thirteen groups, again of four male students each, in this experiment. A major change was that a third phase, of five more trials, was introduced. Before it, group members could choose a new leader, or

have a new one appointed, depending upon the condition.

The findings of this experiment showed that the heightened influence of the elected leader in the second phase was indeed brief. If the group saw no signs of greater success, then the leader was deposed, despite his rise to greater influence following the crisis. After a point, then, the perpetuation of the crisis did not serve to sustain the leader's position. This finding is in accord with Alvarez's (1968) research which demonstrated that leaders lost esteem more rapidly than non-leaders in groups which experienced failure, because the leaders were held more responsible for the group's outcomes.

These data also indicate that the newly elected leader is more influential in the phase just before he takes over than when he does become the leader. The contrast is sometimes quite dramatic. Furthermore, even a not too successful leader is later seen more favorably than his successor, suggesting an initial handicap for the successor which somehow must be overcome. Succession therefore offers promising leads as an area for further study.

More than the literal findings of this set of experiments is the dynamic quality it illustrates. The emphasis is on getting at the followers' perceptions in relationship to the perceptions and actions of leaders and, then, the counteractions of followers. Clearly, there are more aspects of this relationship that need to be plumbed, beyond the matters of source of authority and success or failure. Among those aspects are the means by which the leader's position is legitimated, and the validators to whom the leader must be responsive. Relatedly, there is the matter of task set and the composition of the group.

Another experiment (Edwards, 1975) used the Colossus material to investigate the effect on leadership of the presence or absence of an evaluative set in the instructions given to the group. The guiding hypothesis was that the members' perceptions of an imminent evaluation on the task would increase the leader's latitude

to exert influence.

There were sixteen groups of male students in the experiment, each of which elected its own discussion leader. The experimental session was conducted in two phases. Before each of the phases, the experimenter informed half the groups that the group choices would be scored for acceptability, but the experimenter said nothing about scoring to the other half, in a cross-over design. Therefore, four treatments were created by combinations of sets: Eval-Eval, Eval-None, None-Eval, and None-None. After the first phase, all groups were given failure feedback indicating that they had not scored well.

The results of the experiment were directly contrary to the hypothesis. An analysis of variance showed a significant main effect for task set ($p < .01$), with the leaders most influential when there was no evaluative set (None-None). This supports the rationale of the research, insofar as the presence or absence of an evaluative set affects leadership. However, the inverse result requires explaining. This takes the form of proposing that the complete lack of an evaluative set is actually a condition of ambiguity. Given the leader's position, the effect of ambiguity is to enhance dependence upon the leader as a unique resource. In short, the leader is valued more as a provider of information and direction. At the very least, this is a suggestive point for further study.

Another area of fruitful research is the effect of sex-composition on leadership in groups. Very little has been done on this compared with the large number of studies with all male groups. An experiment by Fallon (1973) addressed this point with groups made up of two male and two female students with either an appointed or elected leader. The same two-phase Colossus material discussed previously was used. Briefly, the results indicated that after being given feedback on group performance, male leaders were more influential than female leaders regardless of their source of authority or the feedback given.

Examination of the post-interaction questionnaires supported the conclusion that this patterning of influence resided in sex-typed social expectancies, with leadership considered to be a male domain and not a female domain.

In a follow-up experiment reported by Fallon and Hollander (1976), thirty-two groups of two male and two female students each elected leaders. The three-phase Colossus material noted above was used, thereby extending the duration of the interaction. It should also be noted that an equal number of males and females served as leaders, even with a bias toward electing males. This was accomplished by declaring the female the winner when an examination of the closed ballots indicated a tie between a female and a male. In all cases, therefore, the leader was the most or equal to the most chosen person in the group.

After the first and second phases, the groups were given consistent success or failure feedback, cross-cutting the male or female leader distinction. Therefore, there were an equal number of groups in the four conditions of success-male, success-female, failure-male, and failure-female. The results were again determined by an influence measure indicating how much any one person's judgments were paralleled by the decisions made subsequently by the group.

The findings of this experiment were consistent with those of Fallon (1973). Regardless of the type of feedback, the male leaders were significantly more influential than the female leaders in the last two phases. Indeed, female leaders significantly decreased in influence after feedback while male leaders maintained their influence. This effect is shown in Figure 1.

Insert Figure 1 about here

The Importance of Verbal Participation to Emergent Leadership

The legitimization of the leader in an emergent situation was assumed to rest on the members' perceptions of the "leadership potential" which an individual displays during the group interaction. Thus, a central assumption in this approach is that the interactive behavior of the leader is an important determinant of members' perceptions of his or her abilities and motivations in the context of the group. By implication, the legitimacy of the leader and the members' acceptance of the leader's influence is seen to follow from these perceptions.

The question of the actual behavior which influences attributed leadership ability confronts the consistent finding in the literature that it is the quantity or frequency with which an individual interacts that predicts the ratings of his leadership, rather than the substance of what he or she has to say (e.g., Riecken, 1958). However, what a person says, or the quality of the contributions made, has been confounded in the typical investigation of this relationship. To evaluate this relationship experimentally, Regula and Julian (1973) manipulated both the quantity and the quality of individual verbal contributions to the task with the aim of investigating their combined influence on perceptions of task ability. Subsequently, Sorrentino and Boutilier (1975) focused even more directly on the issue by manipulating these same variables in an interactive group setting where their impact on ratings of both task and socioemotional leadership could be assessed.

In the first experiment, talkativeness or relative frequency of contributing to the task was manipulated by preparing scripts for two confederates. The confederates ostensibly worked together to complete a creativity task before an audience of ninety-four subject-observers. The two confederates appeared to be chosen at random from the larger group in order to demonstrate a task which all subjects anticipated performing in due course. The creativity task was to

suggest as many alternative uses for a wire coat hanger as possible. The actual uses suggested by each confederate and the frequency were completely controlled. The originality of the particular uses was established from previous pilot research in which judges rated the originality of various possible uses.

Three distinct conditions were created: a quantity condition, in which all uses were of low originality, but one confederate suggested ten possibilities, while the other confederate suggested only six; a quality-quantity condition in which six high quality suggestions were pitted against ten uses of low originality; and a quality condition in which both confederates suggested ten uses, one consistently original and the other low in originality. The primary dependent measures were the audience-subjects' ratings of the two confederates, particularly their judged creativity and their ability to influence others.

The results obtained in this experiment provided strong confirmation for the importance of frequency of participation as a factor influencing judgments of task ability. Virtually no differences in observers' perceptions were found in the quality condition, where only the quality of task contributions differentiated the performances of the two confederates. In each of the other two conditions the confederate who contributed more frequently was seen as more creative and wielding greater influence. This was the case even in the condition in which his more frequent contributions were of distinctly lesser originality as calibrated beforehand.

These results, though consistent with earlier investigations, were observed in a setting in which the subjects were observers so that they were not actually participating in a group problem-solving process in which ratings of leadership or influence might have salience. To sharpen the examination of this issue, Sorrentino and Boutilier (1975) manipulated both quantity and quality of

participation in an interactive, laboratory task. Each of sixteen four-man groups was composed of three naive subjects and a confederate. The four experimental conditions were manipulated by having the confederate follow one of four carefully prepared scripts for his interaction during the problem-solving process. Each of the four conditions was a combination of high or low quality and high or low quantity of interaction. To permit the confederate to use a script the participants were separated upon their arrival at the laboratory for the ostensible reason of more accurate recording of their discussions.

The task was an adaptation of the one used by Hollander (1960) in earlier research. In it, subjects discuss which column of a 7×7 payoff matrix will be next in a supposedly predetermined pattern, and then predict the row that maximizes the points gained and/or minimizes losses. All groups began with 200 points and worked at mastering the patterns for a 15-trial game. Each trial included a one-minute individual choice period in which members were to think about their choices privately, followed by a three-minute group discussion period during which the group members were to decide collectively on their group's choice. All groups chose to use majority decision for reaching a group choice. The major dependent variables were included in a post-session questionnaire administered at the completion of the game. The questionnaire asked for ratings of task and socio-emotional leadership, in addition to judgments of influence on others, contributions to the group goal, competence, and interest.

The scripts which created the manipulations of the quality and quantity of the confederates' participation were developed in extensive pilot work following procedures used by Sorrentino (1971). Quantity was equated with the number of statements the confederate made on a trial, while quality of interaction was determined by knowing the number of points the group would accrue if it adopted

the particular choice advocated by the confederate. For example, for the high quality-high quantity condition, the confederate was a relatively frequent contributor (as determined by the distribution of comments obtained in the pilot analyses) who advocated consistently the choice which would be successful. The other combinations of quality and quantity were similarly manipulated.

The results showed once again that quantity of interaction was a strong determinant of the perceptions of group members. Quantity of verbal participation was a significant determinant of ratings of the confederate's competence, confidence, interest, influence, and contributions to the group-goal, in addition to its strong effects on ratings of both task and socioemotional leadership. Differences in the quality of participation influenced only judgments of competence, influence, and contributing to the goal. Quality of verbal interaction did, however, have a significant interactive effect on ratings of socioemotional leadership.

This intriguing pattern of results provided some initial insights into the dynamics of the ways in which members' contributions influence attributed leader characteristics. Without a doubt, quantity of verbal interaction is overwhelming in its influence on the perception of leadership ability, and as such, emerges as at least a relatively more salient or obvious feature of the interactive process. People who interact more frequently are more apt to receive the initial endorsement of group members for leadership roles. This seems to be the case consistently. The Sorrentino and Boutillier study also suggests that competence is judged to be a function of the quality of interaction as well. The confederate whose contributions were of high quality was seen as more competent. Indeed, competence or ability, in combination with a high quantity of participation, was especially valued for socioemotional leadership. Thus, it would appear that at least in the early stages of group development, member

motivation to perform, as indexed by their quantity of participation, is a more potent determinant of leader emergence than perceived ability. This possible inference certainly warrants further investigation.

Personality, Task Set, and Emergent Leadership Processes

As we have previously noted (cf. Hollander & Julian, 1968, 1969; Hollander, 1974), leadership has been viewed either as a function of the personality characteristics of the individual or those of the situation. The newer conception of emergent leadership phenomena which we favor requires consideration of leadership as an outcome of the interaction of personality and situational demands.

An experiment by Sorrentino (1973) looked at emergent leadership as a function of group members' achievement orientation and affiliation motives. Twenty-one groups of four male students each were composed by using the scores they had obtained on measures of need achievement, test-anxiety, and need for affiliation. Four motive categories were thereby created, with each member of the group differing from the others in his combination of achievement-related and affiliation motives.

The groups performed a task adapted from Hollander (1960), which was referred to earlier as a feature of the experiment by Sorrentino and Boutilier (1975). Subjects are presented with a 7×7 payoff matrix, and are asked to predict the row that will come up next in a supposedly predetermined pattern. The object is to gain or minimize losses. In this experiment, the groups were told either that the ability to engage in future activity was contingent, or alternatively was not contingent, upon success at the immediate activity. As predicted, the members who were high on need for achievement, low in test anxiety, and high on affiliation, received the highest scores on emergent leadership measures in the noncontingent condition, but not in the contingent condition. This finding

suggests that when a group is working for the attainment of future as well as immediate goals, achievement and affiliation motives are important for leadership in task-oriented groups. More broadly, this experiment indicates the strong interaction between personality and situational characteristics.

In an experiment by Gleason, Seaman, and Hollander (1976), another situational factor, task structure, was varied in combination with the personality characteristic known as Machiavellianism. As an interpersonal style, Machiavellianism has shown some success in the prediction of social behavior. It has been found to be associated with "emotional detachment in interpersonal relations, a tendency to exploit situations and others for self-gain, and a tendency to take over control in small groups" (Geis, 1968). Past research has shown that those scoring High on the Machiavellianism ("Mach") Scale developed by Christie and Geis (1970) tend to initiate and control structure in a situation when taking initiative is a viable position.

The specific hypotheses investigated in this experiment were that High Machs would show more leadership related behaviors, and be perceived to be leaders more than Low Machs, when there is a task of Low Structure, and that Low Machs would show more leadership behaviors, and the like, under a task of High Structure. Emergent leadership was measured by both behavioral observations and questionnaire ratings.

Sixteen groups of four male students were used in this experiment. Each group was composed of one High, two Medium, and one Low Mach, based on scores on the Mach V Scale (Christie & Geis, 1970). The groups were randomly assigned to either a High or Low Structure condition. The procedure consisted of having subjects come together in the experimental room and receive identification tags from Experimenter 1. Experimenter 2, who was blind to subjects' Mach levels,

and two expert observers who were blind both to hypotheses and conditions, observed through a well-concealed one-way mirror. Experimenter 1 left and then Experimenter 2 entered and administered the appropriate treatment.

In both Structure conditions, subjects were given instructions for a model-building task, using a "Supertransit" Tinkertoy Model Kit. The models which could be made were a jet airplane, steamboat, and suspension bridge. Although Low Structure groups were free to make their own decisions about how to organize their construction team and proceed with model construction, the High Structure groups were given strict instruction in these matters. Group members then had a ten-minute session for planning followed by a fifteen-minute task period. For all conditions, there was a plan sheet from which members could choose models and follow their form.

During the planning and task periods, the two expert observers scored group members' interactions as "ascendent" or "accepting" in a modification of the Bales system (1950). Inter-rater reliability was .94. After the interaction periods, the subjects completed a questionnaire dealing with their group experiences.

The two major behavioral measures available in the experiment were: (1) the time of possession of the plan sheet (control of a key resource), and (2) "accepting" and "ascendent" behaviors. Analysis of variance of the total "time of possession" measure, for the task and discussion periods together, produced a main effect for Structure ($p < .02$), with subjects holding the plan sheet longer in the Low Structure condition than the High Structure condition.

While analysis of "ascendent" statements showed no significant effects, a main effect for Structure occurred for "accepting" statements ($p < .05$). More accepting statements were made under the High Structure condition than

the Low Structure condition.

With regard to the expected interaction between Mach level and Structure, it was found on the questionnaire item asking "How well do you imagine your group did relative to other groups at the same task?" The highest mean was for High Mach and Low Structure, and an ANOVA yielded a significant interaction effect at the .05 level. On the other post-interaction measures found to yield statistical significance, only a main effect for Structure was obtained.

The major main effect for Mach level was found for the question: "Other than yourself, which member of the group would you be most willing to have as the leader in a similar group in the future?" It was analyzed by chi-square. Though not consistent with the hypothesis, the results were nevertheless revealing. Medium Machs were chosen as leaders significantly more than either the High or Low Machs, in both the High and Low Structure conditions ($p < .02$).

Machiavellianism did make a difference therefore in leader choice. There was at least the suggestion of a preference for the moderate person, in this aspect of leader personality. However, the absence of an interaction effect with Structure on any of the behavioral measures suggests that other contingencies were also involved. Perhaps the most important finding regarding such contingencies in emergent leadership was the main effect for Structure. The Low Structure situation evidently provided more maneuverability for emergent leadership, as was shown most clearly in the measure of "time of possession" of the plan sheet.

In sum, therefore, this experiment reveals some of the powerful effects of Structure on emergent leadership, and suggests that the importance of personality may have been masked by these effects. It would be incorrect to conclude that a personality variable, such as Machiavellianism, is only of limited

importance for emergent leadership, especially in light of the experiment reported previously. Indeed, the leader choice data indicate that persons of moderate Mach level were preferred for the leader role. This finding therefore supports the necessity for an interactive conception of the emergence of leadership.

Conclusions

We have reviewed some of the leadership research in which we have been involved in some way over the years since our chapter was written. In doing so, we discovered a good deal of continuity in this work, linking back to our earlier conceptions about the transactional qualities of leadership.

Clearly, the source of authority distinction, with respect to appointment or election, shows even more vitality now. It also reveals a persisting interaction with the success-failure variable. Perhaps of even more interest is the finding that this interaction is bounded by the mixed-sex composition of the group. The evidence that male leaders retain an advantage in influence compared to female leaders strongly suggests a sex-role stereotype effect. There is also an effect on leader influence from the task set given to the group.

The most striking thing about the work on quantity and quality of participation in affecting emergent leadership is the continuity of the basic finding. That is, quantity matters more than quality, at least initially, although longer term studies of leader-follower relations are needed.

The results on personality and task set are also pertinent to emergent leadership, but they are less definitive with respect to their implications for an interactive conception of the basis for leader emergence. This is obviously an important area for additional research.

In sum, we believe this newer work more nearly approximates the complexity of the transactional features of leadership phenomena. This is consistent with the recent efforts in this direction by Graen (1975) with his Vertical Dyadic

Linkages model of leader-follower relationships. It also is seen in Mintzberg's (1973) conclusion from a study of top executives that their situations are not so homogeneous in quality across a day's activity as has been suggested in the past. These are only some of the suggestive new lines of thinking which need to be followed-up more thoroughly in further work in this area.

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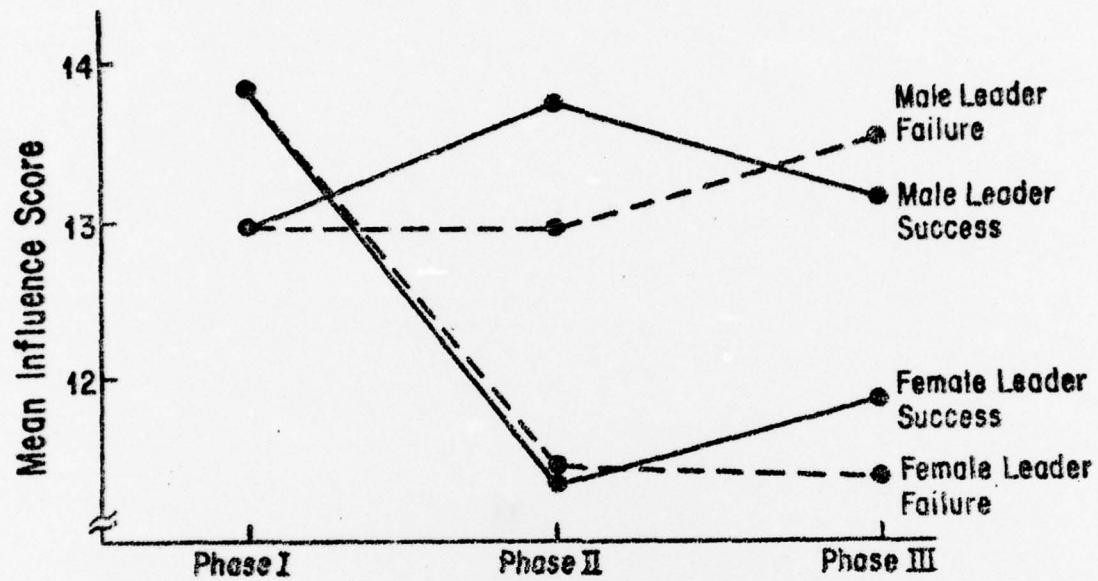


Figure 1. Mean influence scores in three phases for Male and Female leaders, with success or failure feedback to their groups after phases I and III. N = 8 groups of 4 members for each condition. (From Fallon & Hollander, 1976.)

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Orlando, Florida 32813

Dr. Fred E. Fiedler
Dept. of Psychology
University of Washington
Seattle, Washington 98105

Dr. Rudi Klauss
Syracuse University
Public Admin. Dept.--
Maxwell School
Syracuse, New York 13210

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Duke University
Duke Station
Durham, North Carolina 27706

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Center for Creative Leadership
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P.O. Box P-1
Greensboro, North Carolina 27402

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School of Business Administration
University of Washington
Seattle, Washington 98195

Dr. Manuel Ramirez
Systems and Evaluations
232 Swanton Blvd.
Santa Cruz, California 95060

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Graduate School of Management
and Business
University of Oregon
Eugene, Oregon 97403

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School of Organizational Management
Yale University
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New Haven, Connecticut 06520

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Division of Behavioral Science
Tuskegee Institute
Tuskegee, Alabama 36088

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Assistant Chief of Naval Personnel
for Human Goals
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Bureau of Naval Personnel
(Pers-65)
Washington, D. C. 20370

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Naval Aerospace Medical Center
Pensacola, Florida 32512

Department of the Air Force
Air Force Institute of Technology (AU)
AFIT/SLGR (LT Col Umstot)
Wright-Patterson Air Force Base
Ohio 45433

Capt. Bruce G. Stone, U.S.N.
(Code N-33)
Director, Education & Training
Research and Program Development
Chief of Naval Education and
Training Staff
Naval Air Station
Pensacola, Florida 32508

Headquarters, Forces Command
AFPE-HR
Ft. McPherson
Georgia 30330

Navy Material Command
Employee Development Office, Code SA-65
Rm. 150 Jefferson Plaza, Bldg. #2
1429 Jeff Davis Highway
Arlington, Virginia 20360

Eugene F. Stone
Dept. of Administrative Sciences
Purdue University
West Lafayette, Indiana 47907